

General Dental Practitioners and Mass Disaster: Unleashing the Gravity of the Situation in India

Sachin C Sarode¹, Gargi S Sarode², Shankargouda Patil³

Contributors:

¹Professor, Department of Oral Pathology and Microbiology, Dr. D. Y. Patil Dental College and Hospital, Maheshnagar, Pimpri, Pune, Maharashtra, India; ²Associate Professor, Department of Oral Pathology and Microbiology, Dr. D. Y. Patil Dental College and Hospital, Maheshnagar, Pimpri, Pune, Maharashtra, India; ³Associate Professor, Department of Diagnostic Sciences, Division of Oral Pathology, College of Dentistry, Jazan University, Jazan, Saudi Arabia. Email: drsachinsarode@gmail.com

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With increasing incidence of natural calamities, terrorist attacks and travelling disasters, the uncertainty of life has become the hallmark of today's world. The world has already witnessed the most horrifying natural disaster (Tsunami) and terrorist attack (World Trade Center, NYC) of the century. Such activities and their intensity are increasing day by day due to global warming, increased terrorist activities, and faster mode of transportations. Even after attaining the advanced security and precaution guidelines, casualties are part and parcel of such disasters. Under such circumstances, an identification of victim and handing it over to the relatives is one of the paramount aspects on religious and humanitarian grounds. However, such disasters are often associated with mutilation of victims to such an extent that it becomes impossible to identify the bodies on visual examination. Here comes the role of forensic discipline, which already has created a great impact in such disasters. One of the branches is forensic odontology.

Literature review on various mass disasters suggests that forensic odontology played a very important role in victim identification. To name a few, in Tsunami mass disaster, out of 2894 victims identified, 46.2% were recognized with the help of dental parameters. Similarly in World Trade Centre disaster (20.1%), Oklahoma City Bombing (26.8%), Tawau aircraft accident (74%), etc., dental identification was the prime mode for victim identification.¹ There are many more disasters which took place in western countries, wherein data on the role of forensic odontology are available in the literature.

India is not an exception for the mass disasters. According to the World Risk Index, calculated by the United Nations University for Environment and Human Security, India is placed at orange zone with 7.17 points in 2013 ranking.² Till date, many disasters such as Killari earthquake, Tsunami, and Godhra massacre have taken place in India with mass casualties. Surprisingly, there is no literature available on the role or identification of victims based on forensic odontology. In recent unfortunate natural mass disaster at Uttarakhand in 2013, around 5000 people lost their lives. Even after 3 years, surprisingly, data on victim identification by forensic odontology is not available in the published literature. Article published on Uttarakhand disaster has raised the dire need for policy to be framed for Forensic Experts Team including forensic odontologists in such situations with proper training and drills to promote a higher percentage of identifications.³ Even in Tsunami mass disaster, where forensic odontological identification was the main mode of victim identification, most of the unidentified victims were from India as compared to other countries.¹ This and many such examples raise a serious question about the awareness of forensic odontology in India.

Why forensic odontology does not make any impression in India for victim identification in mass disasters? The main reason could be the unavailability of antemortem records at dental clinics, which stems from the lack of knowledge, attitude, and practice about forensic odontology. A recent systematic review by Gambhir *et al.*⁴ on knowledge and awareness of forensic odontology among dentists in India showed that the knowledge and awareness level of the subjects was inadequate with considerably low attitude and practice scores. Even after incorporation of forensic odontology in BDS and MDS curriculum and extensive research in this area, some questions still remain unanswered. Are we, as dental practitioners, maintaining proper dental records? How will we ensure that our dental record keeping method is satisfactory? Is there any governing body that verifies the dental records kept by private practitioners? Are we following any standard method for keeping dental records? Are our dental records satisfactory enough?

Two regional dental officers in the UK, Platt and Yewe-Dyer, performed an interesting study on record keeping standards in dental office.⁵ The beauty of the study was actual verification of dental records available at the private dental practitioners' offices. It was observed that charting was inaccurate in 38% of examined records and absent in 14%. Less than half (48%) record was considered as satisfactory. Similarly, in an observational study on the quality of dental records, Swedish researchers found a large discrepancy in the quality of examined records.⁶ In India, there is a dire need for such observational studies to actually know the current status of dental record keeping pattern. Unfortunately, not a single such observational study has been published in India till date. We recommend that Dental Council of India in collaboration with Government of India should deploy faculties (from government dental colleges) for conduction of such observational studies.

With increasing incidence of mass disasters seen in India, it has become a moral and social responsibility of each and every dental practitioner in India to maintain and produce clear and accurate dental records when needed. With increasing advancement in data storage technologies, it is possible to store the data for a longer period. It's not a question of "what if this (mass disaster) happens again," but "what shall we do when this happens again?" General dental practitioners should realize the potential they carry in the interest of the humankind.

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